

~~10/088596~~ 10/088596

JC10 Rec'd PCT/PTO 21 MAR 2002

PATENT
0514-1003-1

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of: Jairo FALLA et al.

Appl. No.:	NEW	Group:
Filed:	March 21, 2002	Examiner:
For:	BACTERIAL COMPOSITION, PROCESS AND APPARATUS FOR THE PRE-TREATMENT OF EFFLUENTS LOADED WITH FATTY ORGANIC MATTER	

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, DC 20231

March 21, 2002

Sir:

The following preliminary amendments and remarks are respectfully submitted in connection with the above-identified application.

IN THE CLAIMS:

Please amend the claims as follows:

--4. (Amended) Use of a bacterial composition according to claim 1 for the treatment or pre-treatment of effluent rich in organic fats, particularly effluent from the food or agro-food industry.

5. (Amended) Process for the pre-treatment of effluent rich in organic fats, particularly effluent from the food or agro-food industry, characterised in that it consists of pre-treating directly said effluent containing said fats as it leaves the place of its production and in that it consists of accomplishing the following stages:

- supplying a homogenisation and/or processing vessel (1) with effluent to be pre-treated, as it is produced and activating a recirculation circuit (2) between the vessel and a biological reactor (3) so as to obtain in said biological reactor (3) a dilution rate of the fats inversely proportional to the fat concentration initially present in the effluent to be pre-treated and situated between 0.400 h^{-1} and 1.500 h^{-1} for a fat concentration contained in said effluent to be pre-treated entering the homogenisation and/or processing vessel (1) of 1 g/l ,

- degrading said fats in said biological reactor (3) using a bacterial composition according to claim 1, and

- discharging the pre-treated effluent, now containing practically no fats, to a final treatment unit such as a purification plant.

7. (Amended) Process according to claim 5, characterised in that the fat concentration of the effluent to be pre-treated entering the homogenisation and/or processing vessel (1) is less than 40 g/l, and preferably situated between 0.5 g/l and 10 g/l.

8. (Amended) Process according to claim 5, characterised in that the arrival in the homogenisation and/or processing vessel (1) of the recirculation water discharged by the recirculation circuit (2) is effected from above by a spraying device (4).

9. (Amended) Process according to claim 5 characterised in that the pre-treated effluent is discharged using a decanter (5) on the upper part of which a floating pump (6) is provided for the elimination of surface floating sludge that cannot be decanted.

11. (Amended) Facility for the pre-treatment of effluent rich in organic fat, characterised in that it consists principally of at least one homogenisation and/or processing vessel (1), at least one biological reactor (3) of a capacity suited to the daily output of effluent to be pre-treated and to the fat concentration of that effluent, said biological reactor (3) being connected to the homogenisation and/or processing vessel(s) (1) by a recirculation circuit (2), at least one device for providing a controlled supply of oxygen (7) arranged in the

biological reactor(s) (3) and at least one means of discharging the pre-treated effluent, for example by overflow, outside said biological reactor(s) (3).--

REMARKS

Claims 1-11 are pending in the present application.

Entry of the above amendments is earnestly solicited.
An early and favorable first action on the merits is earnestly requested.

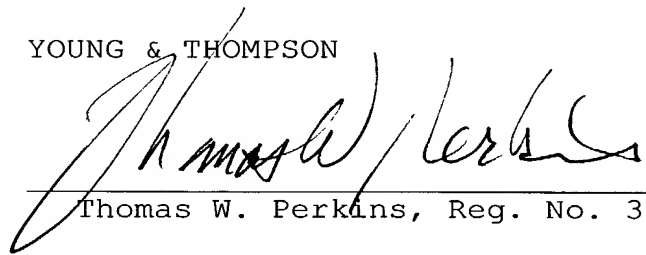
Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



Thomas W. Perkins, Reg. No. 33,027

745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297

TWP/bam
Attachments

531 Rec'd PCT/PTC 21 MAR 2002

VERSION WITH MARKINGS TO SHOW CHANGES MADEIN THE CLAIMS:

The claims have been amended as follows:

4. (Amended) Use of a bacterial composition according to ~~any one of claims 1 to 3~~ claim 1 for the treatment or pre-treatment of effluent rich in organic fats, particularly effluent from the food or agro-food industry.

5. (Amended) Process for the pre-treatment of effluent rich in organic fats, particularly effluent from the food or agro-food industry, characterised in that it consists of pre-treating directly said effluent containing said fats as it leaves the place of its production and in that it consists of accomplishing the following stages:

- supplying a homogenisation and/or processing vessel (1) with effluent to be pre-treated, as it is produced and activating a recirculation circuit (2) between the vessel and a biological reactor (3) so as to obtain in said biological reactor (3) a dilution rate of the fats inversely proportional to the fat concentration initially present in the effluent to be pre-treated and situated between 0.400 h^{-1} and 1.500 h^{-1} for a fat concentration contained in said effluent to be pre-treated entering the homogenisation and/or processing vessel (1) of 1 g/l,

- degrading said fats in said biological reactor (3) using a bacterial composition according to ~~any one of claims 1 to 3~~ claim 1, and

- discharging the pre-treated effluent, now containing practically no fats, to a final treatment unit such as a purification plant.

7. (Amended) Process according to ~~any one of claims 5 or 6,~~ claim 5, characterised in that the fat concentration of the effluent to be pre-treated entering the homogenisation and/or processing vessel (1) is less than 40 g/l, and preferably situated between 0.5 g/l and 10 g/l.

8. (Amended) Process according to ~~any one of claims 5 to 7,~~ claim 5, characterised in that the arrival in the homogenisation and/or processing vessel (1) of the recirculation water discharged by the recirculation circuit (2) is effected from above by a spraying device (4).

9. (Amended) Process according to ~~any one of claims 5 to 8,~~ claim 5 characterised in that the pre-treated effluent is discharged using a decanter (5) on the upper part of which a floating pump (6) is provided for the elimination of surface floating sludge that cannot be decanted.

11. (Amended) Facility for the pre-treatment of effluent rich in organic fats, ~~in particular for the implementation of the process according to any one of claims 5 to 10,~~ characterised in that it consists principally of at least one homogenisation and/or processing vessel (1), at least one biological reactor (3) of a capacity suited to the daily output of effluent to be pre-treated and to the fat concentration of that effluent, said biological reactor (3) being connected to the homogenisation and/or processing vessel(s) (1) by a recirculation circuit (2), at least one device for providing a controlled supply of oxygen (7) arranged in the biological reactor(s) (3) and at least one means of discharging the pre-treated effluent, for example by overflow, outside said biological reactor(s) (3).